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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,187	12/14/2000	Pierrick Jouet	PF990086	9146

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EXAMINER	
HARPER, V PAUL	

ART UNIT	PAPER NUMBER
2654	6

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/737,187	JOUET ET AL.	
	Examiner	Art Unit	
	V. Paul Harper	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☒ Claim(s) *1 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/14/2000*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The Examiner has considered the references listed in the Information Disclosure Statement dated 12/14/2000. A copy of the Information Disclosure Statement is attached to this office action.

Claim Objections

2. Claims 1 and 11 are objected to under 37 CFR 1.75(a) which states the specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

Regarding claim 1 the phrase "analyzing voice data capable of modifying the evolution of the analysis" is not clear either from the claim language or the specification.

Regarding claim 11 the phrase "of conditioning of overstepping of at least one phase" is not clear either from the claim language or the specification.

Correction is required.

Given the above objections, in the following the examiner will interpret the claims in view of the prior art

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, and 4-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Funamoto (Japanese Patent Office Publication Hei 1[1989]-274071], hereinafter referred to as Funamoto.

Regarding **claim 1**, Funamoto discloses a remote controller that includes the following:

- a circuit for acquiring a signal comprising voice data originating from a user (Figs. 1 and 2; p. 2, lines 19-20) ,
- means for detecting an end of voice data signal generated by the intervention of the user (p. 2, lines 22-24, "push-button ... for requesting recognition"; p. 4, lines 18-20, "transmit the recognition request in the presence/absence of a carrier wave"),
- means for analysing voice data capable of modifying the evolution of the analysis as a function of the end of voice data signal (Fig. 2, item 20, recognizer circuit; p. 2, lines 28-30).

Regarding **claim 2**, Funamoto teaches everything claimed, as applied above (see claim 1); in addition; Funamoto teaches "the means for analysing the voice data finalize the analysis of the voice data previously stored on receipt of the end of voice data signal" (p. 2, lines 3-8; p. 5, lines 28-30; recognition occurs only during recognition request signal).

Regarding **claim 4**, Funamoto teaches everything claimed, as applied above (see claim 1); in addition, Funamoto teaches "the end of data signal is generated by manual activation of a signal generation means by the user" (p. 2, line 22-23, push-button switch is used for requesting (and terminating) recognition, i.e., releasing button is a manual activation).

Regarding **claim 5**, Funamoto teaches everything claimed, as applied above (see claim 4); in addition, Funamoto teaches "the end of data signal generation means includes a switch of a remote control" (p. 2, lines 22-23, push-button switch ...; Fig. 1, item 10, transmitter (of remote control); item 3, push-button where the signal ends when released).

Regarding **claim 6**, Funamoto teaches everything claimed, as applied above (see claim 1); in addition, Funamoto teaches "the signal comprising the voice data is received by wireless transmission" (Fig. 1, item 10 is a transmitter; p. 1, first two lines under Claim, "modulates a carrier wave signal based on a speech signal").

Regarding **claim 7**, Funamoto discloses a remote controller that includes the following:

- Remote control device (Fig. 1; p. 1, first two lines under Claim, "remote controller"),

- including a microphone for generating a signal comprising voice data (Fig. 1, item 1) and
- circuits for sending the signal comprising voice data (Fig. 1, item 10; Fig. 2, item 22),
- wherein furthermore comprising user-actuatable means for generating and for sending an end of voice data signal (Fig. 1, item 3, Fig. 2, item 15, p. 2, line 22-23).

Regarding **claim 8**, Funamoto teaches everything claimed, as applied above (see claim 7); in addition, Funamoto teaches "the end of voice data signal generation means comprise a user-actuatable switch" (p. 2, lines 22-23, push-button switch ...; Fig. 1, item 10, transmitter (of remote control); item 3, push-button where the signal ends when released).

Regarding **claim 9**, Funamoto teaches everything claimed, as applied above (see claim 8); in addition, Funamoto teaches "the switch is arranged in such a way as to control the operation of the circuits for sending the signal comprising voice data" (p. 5, lines 20-24, "by pressing push-button ... the recognition request is transmitted in the form of the presence/absence of a carrier waver" where the carrier waver transmits the speech).

Regarding **claim 10**, Funamoto teaches everything claimed, as applied above (see claim 7); in addition, Funamoto teaches "the end of voice data signal consists of

the changeover from the presence of carrier of the signal comprising voice data to the absence of carrier" (p. 5, lines 20-24, also see rejection of claim 9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funamoto in view of Markowitz ("Using Speech Recognition," Prentice Hall, 1996) and ATIS wizard instructions (wizard-instructions.doc, http://wave.ldc.upenn.edu/Catalog/readme_files/atis2/inst.html, 10/11/91), hereinafter referred to as ATIS.

Regarding **claim 3**, Funamoto teaches everything claimed, as applied above (see claim 1). In addition, Funamoto teaches the use of a speech recognition circuit (p. 2, lines 3-7), but Funamoto does not specifically teach the following:

a) the analysis means implement a Viterbi-type algorithm and the traceback through the past states so as to determine one or more sequences of words liable to correspond to the voice data [, and]

b) [the analysis] is commenced upon receipt of the end of voice data signal.

However, the examiner contends that concept a) was well known in the art, as taught by Markowitz.

In the same field of endeavor, Markowitz teaches speech recognition using a Viterbi search where the search matches the input (voice data) to the acoustic patterns in a network, which includes past states (p. 66, boxed section labeled **SEARCHING**).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Funamoto by specifically implementing the techniques, as taught by Markowitz, because it is well known in the art at the time of invention as an efficient technique for performing speech recognition (Markowitz, p. 65, §3.2.2. **Search Efficiency**).

Furthermore, the examiner contends that concept b), "commenced upon receipt of the end of voice data signal," was well known in the art, as taught by ATIS.

In the same field of endeavor, ATIS teaches the processing of the speech when the "Talk" button is "let up on" (p. 7, lines 14-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Funamoto by specifically providing the features, as taught by ATIS, because it is well known in the art at the time of invention as a way to indicate the need to start recognition processing.

Regarding **claim 11**, Funamoto discloses a remote controller using speech recognition that using the following steps:

- of acquiring a signal comprising voice data (Figs. 1 and 2; p. 2, lines 19-20).

In addition, Funamoto teaches the use of a push-button for requesting recognition (p. 2, lines 22-24; p. 4, lines 18-20, i.e., "signaling end of voice data by user"), but Funamoto does not specifically teach the following:

a) of analysing the signal acquired with a view to searching for words or for sequences of words representative of the signal acquired, the analysis comprising several successive phases.

b) of conditioning of overstepping of at least one phase on receipt of an end of-voice data signal triggered by a user.

However, the examiner contends that concept a) was well known in the art, as taught by Markowitz.

In the same field of endeavor, Markowitz teaches speech recognition using a Viterbi search where the search matches the input (voice data) to the acoustic patterns in the network (p. 66, boxed section labeled **SEARCHING,** where Markowitz's network can represent multiple words or sequences of words, and the search-reduction strategies happen in phases).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Funamoto by specifically implementing the techniques, as taught by Markowitz, because it is well known in the art at the time of invention as an efficient technique for performing speech recognition (Markowitz, p. 65, §3.2.2. **Search Efficiency**).

Furthermore, the examiner contends that concept b), "conditioning of overstepping ..." was well known in the art, as taught by ATIS.

In the same field of endeavor, ATIS teaches the processing of the speech data when the "Talk" button is "let up on" including the attempt to make sense of incomplete information (p. 7, lines 14-25,).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Funamoto by specifically providing the features, as taught by ATIS, because it is well known in the art at the time of invention as a way to indicate the need to start recognition processing.

Regarding **claim 12**, Funamoto in view of Markowitz and ATIS teaches everything claimed, as applied above (see claim 11), but Funamoto does not specifically state "the step of analyzing the signal acquired includes a phase of parallel determination of a plurality of words or of sequences of candidate words representative of the signal acquired, and a phase of choosing a word or a sequence of words from among candidates." However, the examiner contends that is concept was well known in the art, as taught by Markowitz.

Markowitz teaches that speech recognition may be treated as a tree network search problem (p. 65, §3.2.2, **Search Efficiency,** ¶ 3, where multiple candidate words can be represented on the (parallel) paths).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Funamoto by specifically implementing the techniques, as taught by Markowitz, because it is well known in the art at the time of

invention as an efficient technique for performing speech recognition (Markowitz, p. 65, §3.2.2. **Search Efficiency**).

Citation of Pertinent Art

5. The following prior art made of record but not relied upon is considered pertinent to the applicant's disclosure:

- Irumano (JP 63171071 A) discloses a speech controller that after a recognition event transmits a recognition completion signal to cancel muting.
- Knittle (U.S. Patent 6,606,280 B1) discloses a voice-operated remote control.
- Lamel et al. ("An Improved Endpoint Detector for Isolated Word Recogntion," IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. ASSP-29, No. 4, August 1981) teach endpoint detection techniques including the use of manual determination that a word has ended.
- Vizer et al. (EP 1 079 352 A1) disclose a remote voice control system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is 703 305-4197. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 703 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Paul Harper

VPH/vph

Vijay Chawan 1/28/04

VIJAY CHAWAN
PRIMARY EXAMINER